

Application # 10/041,661
Response dated November 15, 2004
Reply to Office Action dated July 16, 2004

PATENT
P-5434

Amendments to the Specification:

Please replace the current Title with the following new title:

A sensor formulation for simultaneously monitoring at least two components of a gas composition.

Please replace the following paragraph [0034] with the following amended paragraph:

[0034] A heat curable silicon base polymer was made by mixing a vinyl terminated polydimethylsiloxane with various amounts of catalyst and inhibitor and a crosslinker, which is a polymethylhydrodimethylsiloxane copolymer or a mixture of a vinyl terminated polydimethylsiloxane and a polymethylhydrodimethylsiloxane copolymer. The catalyst can be included in the formulation from 1 ppm to 5% and the inhibitor can be included from 1 ppm to 10%. Non-limiting examples of a satisfactory catalyst and inhibitors inhibitor are a platinum catalyst and a cyclic vinylmethyl-dimethylsiloxane inhibitor as light reflectors.

Please replace the following paragraph [0035] with the following amended paragraph:

[0035] The sensor formulation can consist of 0.36 g of CR, 0.2 g of HIDC coated silica, 0.03 g of DuPont Ti-Pure Titanium Dioxide as light reflectors, and 21 g of polymer. The resulting mixture can be mixed mechanically. RFCS (0.25 g) can be added to the above mixture and mixed again. After the second mixing of the formulation, 3.5 g of a crosslinker can be added and mixed the third time. Any suitable crosslinker can be employed depending upon the degree of cross-linking desired. Two grams of the resulting sensor mixture was loaded into a Bactec 9000 glass bottle. The sensor bottle can then be allowed to set at ambient room temperature for three hours followed by heat cure at 75.degree. for 3.5 hours. Variations on this method can be made without departing from the concept of the present invention.